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# Charleston Harbor Project

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## What will be here tomorrow?

- Will we be able to drink the water? Or will we have to pay an exorbitant price for water that has an unidentifiable taste?
- Will we be able to enjoy scenic vistas? Or will there be buildings blocking every view?
- Will we be able to enjoy a walk on a nearby beach? Or will we have to fight to find any space to enjoy?
- Will we be able to eat the fish and seafood we catch? Or will they be too contaminated to be safe?
- Will we be able to get to and from work in a reasonable time? Or will we be trapped in longer and longer traffic jams? Or will there be an efficient public transportation system?
- Will tourists still be attracted to the Charleston area? Or will it be just another city lost to urban sprawl?
- Will we recycle all of our trash? Or will our lovely landscape - waterways, wetlands, beaches and streets - be covered with litter?
- Will our new developments be well planned clusters with plenty of green space to enjoy? Will they be within walking distance of shopping, schools and work? Or will they be single family homes on dead-end streets requiring more than a dozen daily trips in the car?

**The choices are ours. The future of the Charleston Harbor Estuary system is in our hands.**



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## Charleston Harbor Project Area

- It covers more than 1900 square miles.
- It contains over 140 miles of rivers.
- It is home to half a million people and millions of marine animals.
- It is our natural habitat.
- It is the Charleston Harbor Estuary system.

Estuaries are formed where freshwater from rivers mixes with the salt water of oceans. Often called bays or sounds, estuaries are among the earth's most productive natural systems.

The Charleston Harbor estuary system includes the Harbor, the Ashley, Cooper, Wando and Stono Rivers, their natural resources, and the lands that adjoin them. It is an interconnected, interdependent system which supports an abundant variety of wildlife, allows many different human uses, and adds a distinctive beauty to our quality of life.

### Growth Increases Stress

It is estimated that the Berkeley-Charleston-Dorchester County area will grow from the 506,000 residents of the 1990 census to 750,000 people by the year 2005. As the population grows there will be additional demand for housing, roads and bridges, office and shopping centers, and expanded government services.

Growth increases the stress on sensitive natural systems, and experience from other urban areas shows that the quality of our environment will decline and the uses we make of our natural resources will decrease unless we find ways to manage the system. To maintain the present uses we

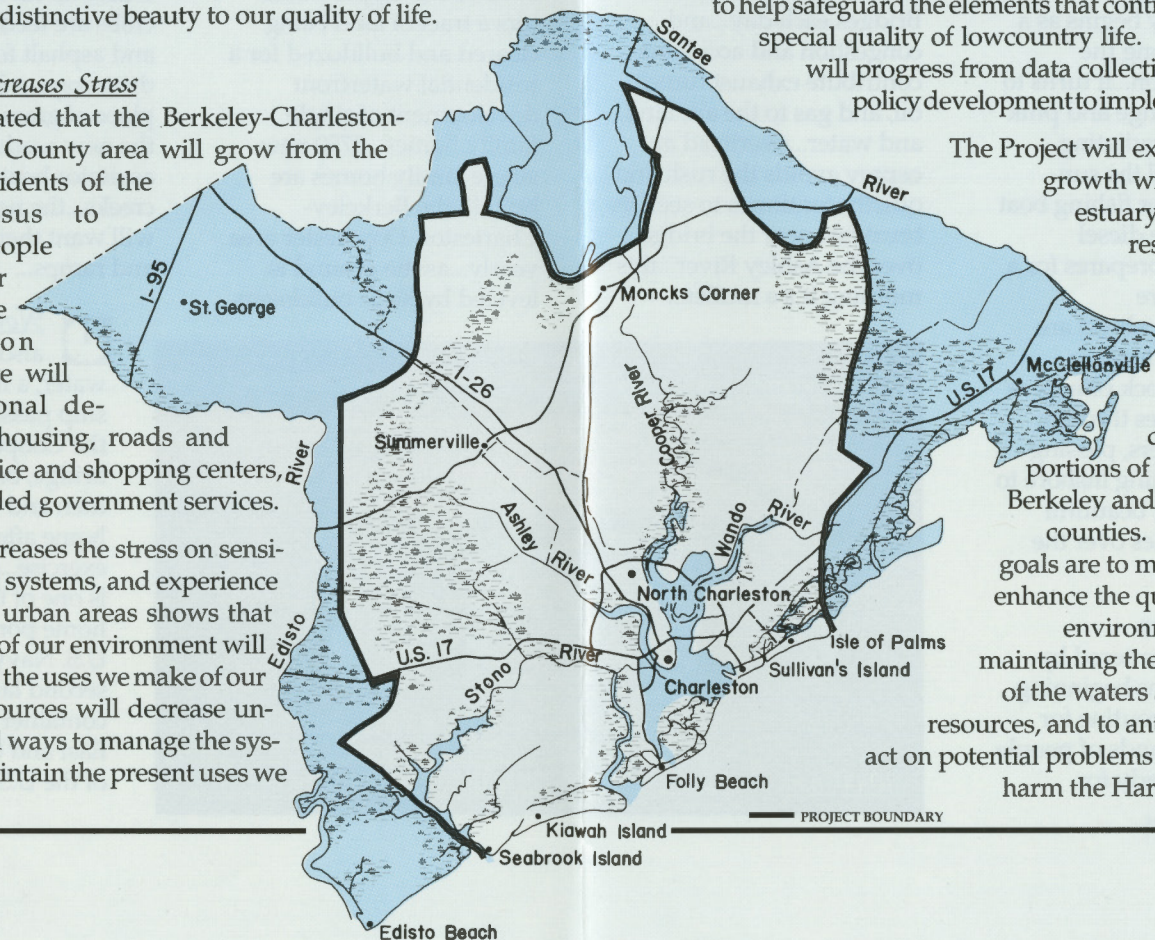
make of the Charleston Harbor estuary system, we must learn to manage the resource.

### Charleston Harbor Project

Over a period of three to four years, state and federal agencies, local governments, economic and environmental interests will all be working together to develop management programs for the Harbor and river system.

This effort is the Charleston Harbor Project and is designed to help safeguard the elements that contribute to the special quality of lowcountry life. The Project will progress from data collection through policy development to implementation.

The Project will examine how growth will affect the estuary, its natural resources and adjoining lands. The area covers most of the developable portions of Charleston, Berkeley and Dorchester counties. The Project goals are to maintain and enhance the quality of the environment, while maintaining the many uses of the waters and natural resources, and to anticipate and act on potential problems before they harm the Harbor system.





# A Day in the Life of the Harbor

Patterns of life and activity flow from hour to hour every day; sometimes they are in harmony with the natural order, but often human actions affect the estuary system in ways which will harm it. Let's take a look at the patterns of life that go on in a day... a day in the life of the Harbor...

**6:00 a.m.** The day begins as a faint glow along the eastern horizon...it turns to shades of orange and pink with streaks radiating skyward until the sun rises...a charter fishing boat starts its huge diesel engines and prepares for a day of offshore fishing...sheepshead are already busy feeding around the dock pilings as the boat moves through the calm waters, passing dolphins coming inshore to feed...another beautiful morning shines over the lowcountry...

**7:00 a.m.** to be shattered by strident alarms beginning the morning routine for tens of thousands of people as they get ready for

work...each one going through the morning routine...(a family of four can use over 240 gallons of water a day)...before rushing out of their homes...and into their automobiles...

**8:00 a.m.** which merge into traffic jams as people travel to their jobs...71,000 cars cross the Cooper River Bridges each day...and congestion and accidents contribute exhaust fumes, oil, and gas to the air, land, and water...overhead an osprey avoids the rush and quietly continues to seek its breakfast near the bridge over the Ashley River...this morning it's a mullet...



10:00 a.m.



Noon

**10:00 a.m.** later, above the new bridge over the Wando River, a developer monitors a tract of land being cleared and bulldozed for a residential waterfront development of single family homes...2750 new single family homes are built in the Berkeley-Charleston-Dorchester area yearly...as the ground is leveled by huge bulldozers

and the exposed land left to erode, soil will find its way into the marshes where larval shrimp and crabs are feeding...concrete and asphalt for streets and driveways will take the place of grass...cars will fill the new roads and bridges as motor boats fill the creeks...the new owners will want their own docks and ramps...

**Noon** also on the water, a military ship passes under the Cooper River bridge, bringing its men and women home after a training exercise...Charleston is one of the largest home ports for the U.S. Navy...it is the second largest container port on the East and Gulf Coasts of the U.S., bringing

\$13.5 billion to the state each year in trade with exotic locales all over the world. The harbor must be dredged regularly to remain competitive. Hopper dredging has been stopped in the Harbor when the water is warm to protect sea turtles...where to dispose of the dredged material is a continuing problem...

**2:00 p.m.** as is runoff from rainstorms which picks up natural and man-made pollutants and moves them to our rivers and wetlands and into the Harbor. People from the four corners of the earth are attracted to the Battery at the tip of Charleston's



2:00 p.m.



8:00 p.m.

peninsula to enjoy a sunny, relaxed afternoon...tourists bring \$4.8 million to Charleston each year...they find their way to Waterfront Park along the riverfront and to the lovely gardens and plantations that edge the Ashley

River...across the peninsula an eagle soars along the east bank of the Cooper River...

**4:00 p.m.** while over the area lawns and fields are fertilized and irrigated to grow and produce...then sprayed to destroy insects...thundershowers wash the day's round of pesticides and pollution into the streams and rivers and finally into the Harbor. The marsh grasses which border the waters provide a sheltered area rich in food for the rapidly growing larvae and juvenile fishes and invertebrates...65% of commercial catch spends some portion of its life in the wetlands...

**8:00 p.m.** after dinner, waste is set out for garbage collection nearly every evening to be picked up by sanitation workers...up to 275 tons of household waste are recycled monthly through drop site containers and a beginning curbside program...but cans are often tipped over by a stray dog looking for an extra meal or a well-fed raccoon on his nightly haunt...the raid brings not only the tasty morsel for the vagrant, but also a mess to be cleaned up by man or nature.

**Midnight** All day and night long, wastes are collected in sewer systems throughout the region...after treatment to state and federal standards, the effluent is discharged into the rivers and the Harbor. As the region grows, the quantity of treated sewage also increases...at some golf courses, the treated effluent powers the early morning sprinklers...and, throughout the day, the tide ebbs and flows, cleansing and bringing vitality to the estuarine system.